Concepts of Retrieval

The complexity of information processing systems results both from the complexity of their individual components and from the complex relationships between these individual components.

The Predict dictionary system helps to manage this complexity by providing functions that retrieve information on the internal structure of information processing systems and properties of their components.

Because it is rarely possible to keep an overview of very complex systems without reducing the amount of information, Predict offers a variety of options to limit the scope of reports to exactly what is needed.

This section describes the concepts of retrieval and the use of all options provided to retrieve information and covers the following topics:

- Types of Information you can Retrieve
- Printing the Output of Retrieval Operations
- Executing Retrieval Operations in Batch Mode
- Using Retrieval Operations to Select Objects for Further Processing
- Indicating Dummy and Placeholder Objects

Predict offers a great variety of operations to retrieve information from the dictionary.

To execute a retrieval operation, define selection criteria and choose a retrieval type and a retrieval mode. In addition, you can specify output options to determine how much of the information retrieved from the dictionary is actually displayed.

All retrieval operations display reports on the screen unless you specify that the report is to be printed.

Types of Information you can Retrieve

Using Predict retrieval you can evaluate the following basic types of information:

Information on Attributes of Individual Objects

Most retrieval types report on the attributes of individual objects. Information on the attributes of several individual objects can be retrieved with a single retrieval operation.

With the retrieval types Objects with children/parents and Objects with no child/parent associations of objects are used to determine which objects are to be included in a report.

Information on the Associations of Objects

Retrieving information on the associations of objects means retrieving information on the structure of the information processing system. Information of this type is primarily collected with the retrieval type Execute retrieval model in combination with the output modes Structured List and Cross reference.

The retrieval type Execute retrieval model evaluates the metadata model starting from an individual object.

Information on the Implementation of Objects

See the sections Active Retrieval and Displaying Information on the Implementation.

Printing the Output of Retrieval Operations

With the Software AG Editor

If the default parameter General defaults > Miscellaneous > Software AG Editor for output is set to Y as standard, retrieval output is written to an Software AG Editor session.

Printing the results of a retrieval operation is a three-step process:

1. Specify a page size in the output options.
2. Execute the retrieval operation.
3. Enter PRINT in the command line.

The report is printed completely.

If you only want to print a range of lines, enter **PRINT x y**

where **x** is the number of the first line to be printed and **y** is the number of the last line to be printed.

Retrieval ouput is created as report 0 and sent to the hardcopy device (*HARDCOPY).

With the Natural Editor

If you set default parameter General defaults > Miscellaneous > Software AG Editor for output to N, retrieval output is displayed as in earlier versions of Predict.

Enter %H in the bottom line of an output screen or press the respective PF key.

Specify the printer in the additional screen that appears.

In this case it is not possible to specify a range of lines. The report is printed completely.

Executing Retrieval Operations in Batch Mode

Retrieval operations can be executed in batch. See the section Predict in Batch Mode in the **Predict Administration documentation**.

Using Retrieval Operations to Select Objects for Further Processing

The output mode Select can be used to select single objects for immediate processing or to select several objects for later processing using the workplan.

The workplan is described in the section Predict User Interface under Using the Workplan in the Introduction to Predict documentation.

Indicating Dummy and Placeholder Objects

Dummies

An association to an object that has not yet been created in the data dictionary is called a dummy. Dummies are included in the report and marked with

>>> object not documented <<<

if the parameter Dummy/Placeholder (for related objects) in the output options is set to Y or to D.

Placeholders

When an object that is linked to another object is imported with the Predict Coordinator together with its Internal ID, and the referenced object is not imported and does not already exist in the target environment, a Placeholder is added in the target environment for this referenced object. The job of this placeholder is to reserve the object ID of the referenced object in the target environment so that the link in the old environment can be recreated in the new environment at a later time.

Placeholders are included in the report and marked with

>>> object is placeholder <<<

if the parameter Dummy/Placeholder (for related objects) in the output options is set to Y or P.